TYAN

4U GPGPU SERVER PLAFORM

PART NUMBERS:

M2075

FT72-B7015 + 1 x TESLA M2075	**B7015F72V2R-N1275**
FT72-B7015 + 2 x TESLA M2075	**B7015F72V2R-N2275**
FT72-B7015 + 3 x TESLA M2075	**B7015F72V2R-N3275**
FT72-B7015 + 4 x TESLA M2075	**B7015F72V2R-N4275**
FT72-B7015 + 5 x TESLA M2075	**B7015F72V2R-N5275**
FT72-B7015 + 6 x TESLA M2075	**B7015F72V2R-N6275**
FT72-B7015 + 7 x TESLA M2075	**B7015F72V2R-N7275**
FT72-B7015 + 8 x TESLA M2075	**B7015F72V2R-N8275**

M2090

FT72-B7015 + 1 x TESLA M2090	**B7015F72V2R-N129**
FT72-B7015 + 2 x TESLA M2090	**B7015F72V2R-N229**
FT72-B7015 + 3 x TESLA M2090	**B7015F72V2R-N329**
FT72-B7015 + 4 x TESLA M2090	**B7015F72V2R-N429**
FT72-B7015 + 5 x TESLA M2090	**B7015F72V2R-N529**
FT72-B7015 + 6 x TESLA M2090	**B7015F72V2R-N629**
FT72-B7015 + 7 x TESLA M2090	**B7015F72V2R-N729**
FT72-B7015 + 8 x TESLA M2090	**B7015F72V2R-N829**

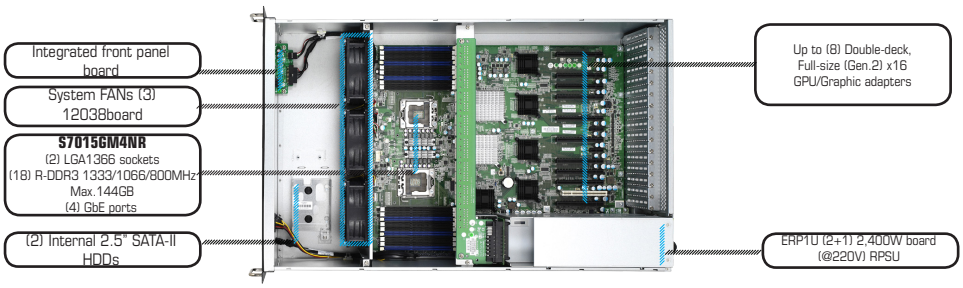
CHASSIS ONLY

FT72-B7015 - ONLY	**B7015F72V2R**

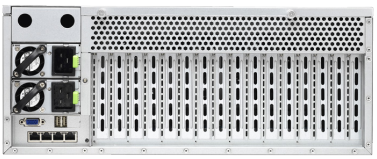
The GPU accelerates applications running on the CPU by offloading some of the compute-intensive and time consuming portions of the code. Designed for high performance in massively parallel computing environments , the PNY product portfolio of TYAN server and NVIDIA GPUs easily meet users' complex workloads requirements while accelerating general computing capability.

Target Applications:

- Bio-Informatics, Life Sciences and Computational Chemistry
- Electronic-Design Automation
- Computational Finance and Computational Fluid Dynamics
- Computer Vision and MATLAB Acceleration
- Data mining, Analytics and Databases
- Imaging, Molecular Dynamics, Weather, Climate Modeling and Atmospheric
- Oil, Gas and Petroleum Exploration
- Physic and Scientific Research


Integrated front panel board
System FANs (3) 12038board
S7015GM4NR
(2) LGA1366 sockets
(18) R-DDR3 1333/1066/800MHz Max.144GB
(4) GbE ports
(2) Internal 2.5" SATA-II HDDs
Up to (8) Double-deck, Full-size (Gen.2) x16 GPU/Graphic adapters
ERP1U (2+1) 2,400W board (@220V) RPSU

Rear view



4U DUAL-SOCKET SMP SERVER IMPLEMENTATION FOR GPGPU APPLICATIONS

Dual LGA1366 sockets support up to (2) Intel® Xeon® processors 5500/5600 series (codenamed Nehalem-EP/Westmere-EP)	(18) 240-pin DDR3 DIMM slots support up to 144GB R-DDR3 1333/1066/800MHz w/ ECC memory
Support QPI 6.4/ 5.86/ 4.8 GT/s	(4) GbE LAN
Dual Intel® 5520 IOH	(2) Internal 2.5" SATA HDDs w/ RAID 0, 1 support
Intel® ICH10R South Bridge	Onboard BMC w/ IPMI and iKVM support
(2+1) Redundant, ERP1U high-efficiency 2,400W PSU (@220V) w/ PFC, 80-PLUS Silver Certified	

TESLA™ MODULES - GPU SPECIFICATIONS

	Tesla M2090	Tesla M2075
PEAK DOUBLE PRECISION FLOATING POINT PERFORMANCE	665 Gigaflops	515 Gigaflops
PEAK SINGLE PRECISION FLOATING POINT PERFORMANCE	1331 Gigaflops	1030 Gigaflops
CUDA CORES	512	448
MEMORY SIZE (GDDR5)	6 GigaBytes	6 GigaBytes
MEMORY BANDWIDTH (ECC off)	177 GBytes/sec	150 GBytes/sec

FT72-B7015 - SPECIFICATIONS

SYSTEM	Form Factor		4U Rackmount
	Chassis Model		FT72
	Dimension (H x W x D)		176 x 438 x 710mm
	Motherboard		S7015GM4NR
	Gross Weight (est.)		27 kg (Bare system only)
FRONT PANEL	Buttons		(1) RST / (1) PWR (w/ LED)
	LEDs		(1) HDD / (1) Warning
	I/O Ports		(2) USB ports
EXTERNAL DRIVE BAY	Type / QUANTITY		2.5" Internal / (2)
	Supported HDD Interface		SATA-II 3.0Gb/s
SYSTEM COOLING CONFIGURATION	FAN		(3) 12cm fans
POWER SUPPLY	Type		ERP1U hot-swap / (2+1)
	Input Range		Full-range AC (100-240V)
	Frequency		47 - 63 Hertz
	Output Watts		2,400 Watts (2x 1,200W @ 220Vac)
	Efficiency		PFC / 80-plus Silver
PROCESSOR	Supported CPU series		Intel® Xeon® processor 5500/5600 series
	Socket Type / Quantity		LGA1366 / (2)
	Thermal Design Power		Max. up to 95W
	(TDP) Wattage		Up to 4.8/ 5.86/ 6.4GT/s with Intel QuickPath
CHIPSET	System Bus		(2) Intel 5520 / ICH10R
MEMORY	Supported Dimm Quantity		(9+9) DIMM slots
	DIMM Type / Speed		DDR3 800/1066/1333 RDIMM/UDIMM
	Capacity		Up to 144GB RDIMM / 48GB UDIMM
	Memory Voltage		6 Channels (3 Channels per CPU)
	Memory Channel		1.5V
EXPANSION SLOTS (B7015F72V2R)	PCI-E		(8) FH/FL PCI-E Gen.2 x16 slots (2) FH/FL PCI-E Gen.2 x16 slots (w/ x4 link) (2) FH/FL PCI-E Gen.2 x1 slots
	PCI		(1) FH/FL PCI 32/33MHz slot
LAN	Port Quantity		(4)
	Controller		Intel 82574L
STORAGE	SATA	Controller	ICH10R
		Speed	3.0 Gb/s
		RAID	RAID 0/1 (Intel® Matrix RAID)
GRAPHIC	Connector Type		D-Sub 15-pin
	Resolution		1600x1200@60Hz
	Chipset		Aspeed AST2050
INPUT /OUTPUT	USB		(4) USB2.0 ports (2 at rear, 2 at front)
	VGA		(1) D-Sub 15-pin VGA port
	RJ-45		(4) GbE ports
SYSTEM MONITORING	Chipset		Winbond W83793G
	Voltage		Monitors voltage for CPU, memory, chipset & power supply
	Temperature		Monitors temperature for CPU & system environment
	LED (on system front)		Fan fail LED indicator / Over temperature warning indicator
	Others		Watchdog timer support
SERVER MANAGEMENT	Onboard Chipset		Onboard Aspeed AST2050
	AST2050 iKVM Feature		IPMI 2.0 compliant baseboard management controller (BMC) BIOS update USB 2.0 virtual hub
	AST2050 IPMI Feature		24-bit high quality video compression Dual 10/100 Mb/s MAC interfaces
BIOS	Brand / ROM size		AMI / 4MB
	Feature		Plug and Play (PnP) PCI2.3 /WfM2.0 /SMBIOS2.3 /PXE boot ACPI 2.0 power management Power on mode after power recovery User-configurable H/W monitoring Auto-configurable of hard disk types Multiple boot options
OPERATING SYSTEM	OS supported list		Please refer to our OS supported list.
REGULATION	FCC (DOC)		Class A
	CE (DOC)		Yes
OPERATING ENVIRONMENT	Operating Temperature		10° C ~ 35° C (50° F~ 95° F)
	Non-operating Temperature		- 40° C ~ 70° C (-40° F ~ 158° F)
	In/Non-operating Humidity		90%, non-condensing at 35° C
RoHS	RoHS 6/6 Complaint		Yes

PNY Technologies Europe
Contact us at: sales@pny.eu
Tel : +33 (0)5 56 13 75 75

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